R E P O R T R E S U M E S

ED 015 884 SP 001 319

AN INTERACTION MODEL APPLIED TO SUPERVISION.
BY- BOYD, ROBERT D.
EDRS PRICE MF-$0.25 HC-$0.64 14P.

DESCRIPTORS- *INTERACTION, *MODELS, MOTIVATION, *RESEARCH, RESEARCH TOOLS, SPEECH, *SUPERVISION, SUPERVISORS,

THIS STUDY OUTLINES A SMALL GROUP INTERACTION MODEL WHICH CAN BE APPLIED TO SUPERVISION. IT CONSISTS OF THREE CHANNELS -- (1) THE MOTIVATIONAL CHANNEL IN WHICH THE MOTIVATIONAL ASPECT OF AN UTTERANCE (I.E. QUESTIONS, EXCLAMATIONS, ASSERTIONS) IS IDENTIFIED ACCORDING TO THE PARTICULAR EGO CRISIS (TRUST VS. MISTRUST, AUTONOMY VS. SHAME DOUBT, INITIATIVE VS. GUILT, INDUSTRY VS. INFERIORITY, IDENTITY VS. ROLE DIFFUSION, INTIMACY VS. ISOLATION, GENERATIVITY VS. STAGNATION, INTEGRITY VS. DISGUST DESPAIR) WHICH IS BEING EXPRESSED THROUGH IT, (2) THE DELIVERY CHANNEL IN WHICH THE STYLE OF DELIVERY IS ANALYZED TO SEE WHICH OF THE SIX EMOTIONAL STATES (HOSTILITY AND AGGRESSION, AVOIDANCE AND WITHDRAWAL, WARMTH AND INTIMACY, FORMALITY AND ALOOFNESS, RELIANCE ON AN AGENCY OR AUTHORITY EXTERNAL TO THE MEMBERSHIP, AND CONCERN OVER A THREAT TO PERSONAL AUTONOMY) IT EXPRESSES, AND (3) THE INFORMATION CHANNEL IN WHICH AN INFORMATION CODING SYSTEM CONSISTING OF 4 CATEGORIES -- (A) HAS POSSESSION OF INFORMATION, (B) DOES NOT HAVE POSSESSION OF INFORMATION, (C) INFORMATION IS IN CONFLICT WITH SOME OTHER PIECE OF INFORMATION, OR (D) INFORMATION IS NOT IN CONFLICT WITH ANY OTHER PIECE OF INFORMATION -- IS PRESENTED. PAPER REPRINTED FROM RATHS, JAMES AND LEEPER, ROBERT R. (EDS.) THE SUPERVISOR - AGENT FOR CHANGE IN TEACHING, ASCD PUBLICATION, WASH., D.C.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

SP 001319

ED015884

An Interaction Model Applied to Supervision

Robert D. Boyd

SUPERVISION may be examined within the context of communication. Meanings are given to behaviors. As a supervisor observes and listens, he encodes and decodes what he perceives. In turn, he delivers messages to the supervisee on the bases of his encoding and decoding. The supervisee does likewise within his own frame of reference. Within the supervision situation, messages and interpretation of messages flow and mingle at a tremendous rate in the stream of interaction.

The analogy of a river serves our purposes in illustrating certain problems occurring in supervision as they may be examined within the context of communication. One such problem occurs when either or both the supervisor and supervisee become overly aware of a particular current to the exclusion of the general direction of the river. For example, each sends and receives information about the function of autonomy in teaching-learning situations. This topic is pursued to the exclusion of the fostering of industry, the development of ego identity, and the encouragement of initiative. The narrowness of the direction and content of the messages could not be realized unless the supervisor possessed a knowledge wider than the particular current within the river. The need to have knowledge of the basic structure of the river that is to be navigated should be abundantly obvious.

Both supervisee and supervisor may, at times, get caught up in the eddies of emotional concerns and faulty cognitive structures. The analysis of communication by a knowledgeable supervisor would quickly identify the eddies and whirlpools. With knowledge, some could be avoided and the remainder could be prevented from shipwrecking the whole enter-

prise. Like a navigator, a supervisor out of the nature of the enterprise has to know where he is going and has to have technical operational knowledge of the means to get there.

Tools—and the Ends Sought

It is essential that this latter point be fully comprehended. A supervisor must have a technical operational knowledge of the means by which to achieve the objectives of the program. There are two aspects to the concept of knowledge as it is employed here. One aspect is understandings; the other is the effective utilization of performance skills in using some set of means. The importance of understandings, although ignored by some psychologists, is assumed here to be basic to a functional education. But understandings do not provide by themselves the power to build. Tools and the skills to use them are the necessary complements to understandings. The progress that man has made rests both upon the understandings that have been developed to explain what men have perceived and imagined and upon tool-making that has extended the reach and power of our own innate feeble tool capacity. Both, in complement, make it possible for us to walk out among the stars.

Educators are and should be among the great tool users. The concept *tool,* as I use the term here, means a conceptual device which, to the extent that the user understands the purposes and structures of the device, and to the extent that he possesses the skills essential to use the device, provides the user a means to analyze or synthesize a set of events unique to the device. Conceptual tools have been categorized as paradigms, models, theories, methods, techniques, etc. In the field of education there are many examples: the taxonomies of objectives, Guilford's three faces of intelligence, Test-Operate-Test-Exit, Developmental Tasks, and others.

To have a conversant level of knowledge about a set of conceptual tools in the areas of curriculum, instruction and learning, is not adequate for qualifying a professional educator. Tools are designed to do work and they can only be put to work effectively and efficiently by those who are skilled in their use. To dismiss the need for the development of skills in the application of conceptual tools on the basis that most tools are crude and inadequate, is analogous to throwing away a flint-stone because it is not a match. It can be readily appreciated that much work needs to be done in improving the tools we have and in producing tools in those areas where there are none. These latter observations are not the issue. Rather, the issue is that the education of educators does not demand and discipline for the intelligent and skillful application, analysis, syn-

thesis and evaluation of conceptual tools employed in the areas of curriculum, instruction and learning.

The educational psychologist is and should be deeply involved with this issue. The function of educational psychology in large part is to develop and test conceptual tools in the areas of human development and adaptation. Tools by which to conceptualize learning, motivation, perception, instruction, communication, etc., are what he seeks in order that he may subsequently be able to explain human behavior in educational situations.

The choice of a set of tools and the ends which are sought through the application of the chosen set of tools are issues in the domain of valuation. The identifying, defining and defending of a valuation system are basic and crucial to intelligent and consistent decision making. If we, as educators, conceive the learner to be passive and receptive, we would select one set of tools. If we conceive the learner to be active and adaptive, we would select another set of tools. Every conceptual tool that educational psychologists invent rests on a set of assumptions about learning, the nature of the human being, and the nature of the human enterprise. The conceptual tool that I am going to describe and discuss has been built on a set of valuation assumptions.

A primary role of the educational psychologist is to work toward the elimination of valuation assumptions in education through accepted procedures of scientific inquiry. In doing their work the educational psychologists have on several occasions developed conceptual tools which greatly aid teachers in carrying out educative processes. In this sense the educational psychologist may be categorized as a toolmaker.

Let us now examine a conceptual tool that should have significant meaning and application in the field of supervision. The utility of any instrument in the final phase rests on the conceptual flexibility and initiative of those who are to use the instrument. Rockets, known to the Chinese for hundreds of years, remained for them simply artifacts of ritual symbolism.

Three Channels of Communication

Here then, is a conceptual tool in a form of a model which uncovers for us the dynamic interdependent variables in communication. I have called it the three-channel system.

As I have observed groups and have listened to and restudied the transcriptions of group interactions, I have become very much aware of two constituents to interaction. One constituent is the symbolic patterns, the other is the content conveyed through the symbolic patterns. Symbolic patterns are gestures and linguistic structures. The raised eyebrow

or the shrug of the shoulders are examples of gestures. Examples of linguistic structures are questions, exclamations, assertions. I refer to linguistic structures as utterances.

An utterance may not only be classified by type of linguistic structure but also by content. The term *content* includes more than subject matter or information on a particular subject. Content of an utterance also includes a motivational and a delivery component as well as a subject matter component. I shall attempt in the following sections of this paper to make clear what is meant by the three components. These three components are viewed in their dynamic phase as the three channels of communication. (See Figure 1.)

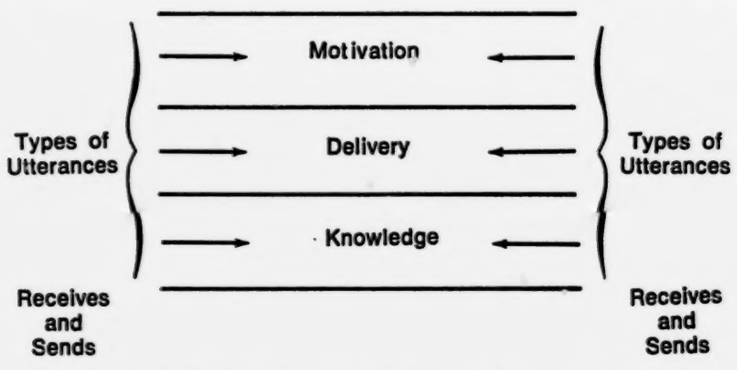

Figure 1. The Three Dimensions of Communication

Motivational Channel

One function of language is in the service of basic concerns. Basic concerns may be conceptualized in any one of a number of motivation and personality theories. The theory of ego crises, for several reasons, appears to be a most productive theoretical framework and it is that theory which is employed in the present study. Thus, the motivational aspect of an utterance is identified according to the particular ego crisis which is being expressed. For example, a question, in an interaction sequence, that is seeking the structuring of authority may be defined as having as its motivational component the ego crisis of autonomy.[1]

An examination of one's own experiences in an interpersonal inter-

[1] It should not be inferred from this sole, isolated analysis that the individual contributing the particular utterance has the crisis of autonomy as a central concern. The only relevant point that can be made at this juncture of the analysis is that the particular utterance is expressing the ego crisis or concern for autonomy as its motivational content.

action sequence may prove to be constructive at this point. As one listens to (and watches) a person talking, he may begin to perceive certain concerns which are being expressed. The concerns may appear openly in the surface flow of his conversation or discussion. The concerns may appear just as frequently in less open vision, coming to the surface with this word or that gesture.

The person may be telling him about his work-a-day experiences and running through his accounts are consistent threads of perceived mistrust of his fellow workers. Such concerns openly displayed or masked behind words and gestures are perceived as the motivational content of the utterance.

Elsewhere (3; 4) the author has presented the reasons and rationale for selecting ego psychology conceptualizations of motivation, specifically in the work of Erik Erikson (5; 6). Briefly, the argument may be presented in the following terms. Basic motivation may be defined as the desire to overcome and the expression of resolving an irritability arising in the physio-psycho-social fields of interaction of an organism. So defined, motivation cannot be studied directly. Only the behavioral manifestations of the inner processes involved in the handling of the irritabilities may be observed and studied. Unfortunately there is no justification to assume that the many facets of the total confrontation between the adaptive forces and agencies and the irritabilities come to the level of observable overt behavior. Clinical evidence has demonstrated that such total observation and even awareness are not readily perceived or obtained.

It is at this point that we must clearly realize the point alluded to earlier that since irritabilities are expressed in physio-psycho-social fields, the meanings that the irritabilities come to have transcend intra-interpretations, and require inter-interpretations between the organism and its environment. Here the concept ego provides the bridge uniting, through "meaning," the inner life of the individual and its dynamic involvements with its environments (7). In brief, our argument is that motivation may be studied by observing the problems the ego is working on and by categorizing these problems into a life-span, physio-psycho-social personality system.

The most elaborate and operational statement of ego development has been given by Erik Erikson in a series of clear and brilliant writings. In these writings, Erikson has presented a new theory of personality development which extends Freud's theory of psychosexual development of the libido into the sphere of ego processes. The ego is seen as a developing part of personality in its own right. Ego development is assumed

to take place in a systematic fashion in combination with libido developmental processes and general motivation processes. Erikson divided ego development into eight stages. He postulated that each stage is focal to a certain chronological period of life, and that at each of these periods the ego faces a central problem or crisis. Havighurst (9) has developed a similar rationale under the rubric "developmental tasks."

Figure 2 is an epigenetic diagram of the eight ego crises. The figure is to be read from the top left corner diagonally to the bottom right corner. Each diagonal cell should be connected and read with the corresponding age period which appears at the left margin of the figure. For example, the ego-stage, autonomy vs shame and doubt, is connected to and read with the muscular-anal chronological period.

	1	2	3	4	5	6	7	8
I Oral-Sensory	Trust vs. Mistrust							
II Muscular-Anal		Autonomy vs. Shame Doubt						
III Locomotor-Genital			Initiative vs. Guilt					
IV Latency				Industry vs. Inferiority				
V Puberty and Adolescence					Identity vs. Role Diffusion			
VI Young Adulthood						Intimacy vs. Isolation		
VII Adulthood							Generativity vs. Stagnation	
VIII Maturity								Integrity vs. Disgust Despair

Figure 2. The Eight Stages of Man
(After Erikson, 1950.)

It is beyond the scope of this paper to explain fully Erikson's contributions to the theory of ego-stage development. However, it may be of some help to present a brief explanation of one ego-stage in order that the reader may grasp the nature of the particular conceptual framework.

The first stage, trust vs. mistrust, is identified by Erikson as the "oral-respiratory-sensory stage" (6: 166). This is the physiological aspect in the physio-psycho-social triad that the ego must handle. Erikson goes on to state that trust is established initially by:

> . . . consistency, continuity, and a sameness of experience (which) provide a rudimentary sense of ego identity which depends, I think, on the recognition that there is an inner population of remembered and anticipated sensations and images which are firmly correlated with the outer population of familiar and predictable things and people (5:219).

Here he expresses the psycho-social aspects of ego development.

Having a knowledge at the analysis and synthesis level of this particular conceptual framework should provide a means by which to categorize the motivational aspect of utterances. The examples which follow may illustrate the procedures.

A student teacher speaking to a supervisor may say:

1. "It's a lot of fun to start projects with the children." Here is positive initiative.

2. "Some children don't seem to like me, at least they never seem to want to be openly friendly toward me." Here is the ego crisis of intimacy. One should also be aware of concern in the crisis of basic trust.

3. "Teaching has a lot of satisfaction for me but I still don't know whether it is for me."

The crisis of role identity is foremost in this utterance. It is essential to listen most carefully, for the primary concern may lie elsewhere. There may be concern in crisis of industry or in basic trust. Listening carefully and asking questions should help to reveal where the weight of the problem lies.

Delivery Channel

Another of the three content components of an utterance is delivery. An utterance may be spoken, or delivered in a wide variety of manners. For example, the word "no" may be spoken sternly, questioningly, laughingly, firmly or mildly. One commonly may hear an individual remark: "It is not so much what he says that irritates me, but the way in which he says it." Another similar remark that may be heard during a break session of a group is: "There is something in John's manner that just rubs me the wrong way." Style of delivery has long been a concern of students of speech.

Novelists go to great length to describe their characters in terms of delivery styles and the meanings that are attached to these behaviors.

> . . . the Italian's face changed instantly and assumed the look of offensive, affected sweetness, which was evidently its habitual expression in conversation with women.[2]

> . . . Sonya gave him an intensely furious look, and, hardly able to restrain her tears, though there was still a constrained smile on her lips, she got up and went out of the room. All Nikolay's animation was gone.[3]

Delivery styles portray meanings. It is the scientist's responsibility to develop a system of categories that does as little violence as possible to the meanings of behavior. The simpler the system of categories the more immediately usable these categories may be. Many researchers have struggled with the problem of categorizing behavior. Among them, the works of Bion and of Thelen with his associates appeared to be ideally suited to the needs of the present research. The material which follows draws heavily on their works.

There are two content aspects in delivery style, work and emotionality. Work aspects of group operations have been defined as, "the consciously determined, deliberate, reality-bound, goal-seeking aspects of the group's activities" (10: 13). There are four types of work (10):

Level 1. This level of work is personally need-oriented.

One-level statements are triggered off by what is happening in the group but they are expressions of personal need and are not group-oriented. Energy is bound up with the internal situation of the individual rather than with the interactive situation (11: 28).

Level 2. This level of work involves setting up the structure within which they may work on the task. Behaviors included in this level may involve attempting to define the task, taking care of the housekeeping needs and details, searching for and clarifying means and plans by which to achieve the completion of the task.

Level 3. This level of work is ". . . group-focused work which usually has some new ingredient. It tends to be recognizable as active problem solving" (11: 29).

Behaviors included in this category are: indications of thought-in-process leading to understanding, introspection, reasoning, reckoning, musing, cogitating, spelling out relations, cause and effect, exploring, testing, categorizing, etc.

Level 4. This level of work is creative, insightful and interpretive.

[2] Leo Tolstoy. *War and Peace.*

[3] *Ibid.*

Four-level work usually involves an appropriate (i.e., the group is ready for it) and insightful interpretation which brings together for the group a whole series of experiences and infuses meaning into them, and at the same time has immediate relevance to present problems (11: 29).

The emotionality aspects of group operation have been defined as ". . . non-purposive, 'instinctual,' and not under conscious control" (10: 13). There are six types of emotionalities or emotional states:[4]

Fight statements express hostility and aggression. Behaviors included within this category are: attacking, rebuking, punishing, blocking, dividing (the group), warning, threatening, expressing hostile resistance, self-aggrandizing (at the expense of others), scapegoating, ridiculing, criticizing, opposing, disagreeing, rejecting, disapproving, etc.

Flight statements express avoidance and withdrawal. Behaviors included within this category are: making or engaging in light humor, over-intellectualizing, dealing with trivia, giving off-the-point comments, overgeneralizing, manifesting impatience (to leave and move on), unattending, mumbling, non-responding, etc.

Pairing statements express warmth, intimacy and supportiveness. Behaviors included in this category are: friendliness, unusual responsiveness, side remarks to another, expressions of commendation, enthusiasm to a member or to the group as a whole, demonstrations of affection, love and sexuality, encouraging others, rewarding, approving, reassuring, bolstering, admiring, adoring, sharing, supplying, showing compassion and tenderness, mediating, conciliating, moderating, cooperating, etc.

Counter-pairing statements express desire for formality, aloofness, noninvolvement on the interpersonal level. Behaviors included in this category are: seeking or maintaining interpersonal detachment, resistance to casualness in groups, non-affectionate, formal, withholding love or friendship, impassive, rigid and cool in friendship situations, unapproachable, impersonal, distant, reserved, works against friendship groups (on the basis that this destroys the group as a whole), etc.

Dependence statements express reliance on some person or thing (an agency, authority, etc.) external to the membership. Behaviors included in this category are: appeals for support or direction from the leader, looking for leader approval, undue attention to the leader, expressing reliance on outside authorities, expressing reliance on structure, procedure or tradition, expressing group weakness and fear of

[4] For a detailed development of this material see: Dorothy Stock and Herbert A. Thelen. *Emotional Dynamics and Group Culture*. Washington, D.C.: National Training Laboratories, 1958.

trying things, has misgivings, expresses doubt in a manner that seeks support from the leader, seeks permission from leader, seeks aid and advice from leader, authority or tradition, etc.

Counter-dependency statements express a concern over threat to personal autonomy. The basic dynamic is that the individual has powerful needs for dependency but he over-denies their existence. Behaviors included in this category are: strong displays of independence, insistence on the rights of individuals, questioning of leader's authority, tradition and authorities, overly self-assertive, dramatizes problems of status and authority, self-exalting, interrupting leaders, ridiculing and undermining leadership, procedures and traditions, etc.

These six emotional states or emotionalities operate at the interpersonal contact level. They are modes by which an individual relates to another individual, subgroup, or the group as a whole. They are the delivery styles an individual may use to communicate his concerns and his knowledge. An inspection of the categories readily reveals the approach-avoidance polarity. There are three modes of approach: fight, pairing and dependency. There are three modes of avoidance: flight, counter-pairing, and counter-dependency.

Again, examples may be employed to illustrate this system of categorizing behaviors.

A student teacher may say to his supervisor in the course of a conference:

1. "Yes, I think you are right, I did move in too quickly." Here is a pairing statement and as far as we are able to categorize from an isolated statement a Level 3 work statement.

2. "I think we should take my lesson plan up first, don't you?" This would appear to be a dependency statement and Level 2 work.

It should be obvious that to isolate an interaction utterance makes the coding of the particular interaction utterance difficult. In most instances coding an utterance depends on the context and previous utterances.

Information Channel

There are coding systems in existence which are designed to categorize interactions which occur in small groups. These existing systems in one way or another do not meet the demands of the proposed interaction model. Some systems are only concerned with certain aspects of the information channel (8: 12). The system developed by Bales (1)

and later the work of Borgatta (2) do treat directly the communication flow of small interaction groups. Their systems, however, combine the social-emotional categories within the same system as the work categories. The present proposed interaction model attempts to separate these two dimensions on the basis that the social-emotional and the informational subject matters of an interacting group occur simultaneously. This cannot be tested either in Bales' or Borgatta's system.

There is a serious omission in Bales' coding system which can be noted also in the other interaction coding systems. It is the failure of the system to code the target's reaction to the initiator's act unless it is directly and openly expressed. It is possible to observe readily the target's acceptance of an initiator's act when, for instance, he augments the initiator's contribution. The target may not give any codeable act showing agreement, but it is clearly evident that the agreement is embedded in the target's contribution to the initiator's act.

It should also be pointed out that recognizing the agreement tells us very little. It is when we examine the agreement which occurs on the information channel along with the simultaneous codings on the delivery and motivation channels that we may be able to form a defensible explanation for the particular patterns of behavior. For example, it may be found that agreement between two individuals occurs when the initiator gives pairing behaviors.

It is evident from the agreement that if a coding system is designed to categorize interactions, then it is necessary for such a system to report at some level the interaction nature of the acts. It is not sufficient to report the sequence of acts using categories that treat each act as a completely separate entity. The nature of the entity may be determined from context, as is true in Bales' system, but the coding does not directly report the sequential relation of one act to another. It seems only logical in the study of interaction in small groups that the nature of the sequential relations should be categorized whenever possible.

	No Conflict	Conflict
Has possession	(1)	(3)
Does not have possession	(2)	(4)

The reception of information has two dimensions. One dimension

may be designated as the possession of information dimension. The other may be designated as the conflictual dimension of information. A simple grid diagrams the interrelations of these two dimensions.

A single piece of information may be categorized to one of the four cells. One has or does not have a particular piece of information which is being communicated. The particular piece of information is regarded as not being in conflict with any other piece of information or it is regarded as being in conflict. We act differently according to the cell to which the information has been classified. The types of acts coded to each of the four cells of the matrix may be briefly identified as follows: (a) The information is perceived as Type 1, the target (the individual receiving the information) agrees and/or supports the initiator's contribution. (b) The information is perceived as Type 2, the target may accept the contribution or he may seek more information. His behavior is not rejection or fault finding but a withheld judgment until sufficient additional information is provided. (c) The information is perceived as Type 3, the target will reject the information. (d) The information is perceived as Type 4, the target will question the contribution with the intent of finding some defect in the information.

Only overt responses of the target to an initiator's acts are coded.

There is the cognitive aspect of information. It includes the knowledge of specifics, of ways and means, and of universals.[5] These three aspects which may be employed to categorize information are combined with the reception dimension to form a three dimensional matrix as shown below.

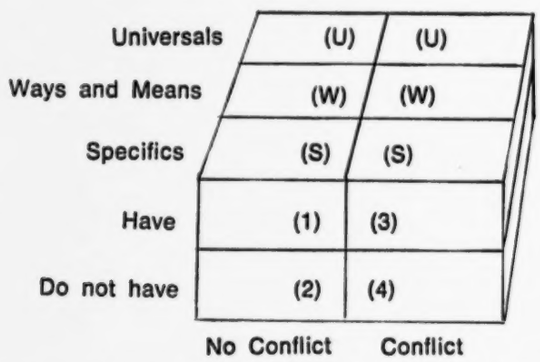

Figure 4. Schema Showing Basic Information Categories

[5] The material in this section is largely based on the work of the committee that produced the volume: Benjamin S. Bloom and D. R. Krathwohl. *Taxonomy of Educational Objectives. Cognitive Domain.* New York: David McKay Co., Inc., 1956.

There is yet one further type of information which is communicated. This type can collectively be referred to as the evaluative aspect. A comment may be specifically a statement of fact without any perceivable evaluative connotations. It is equally possible to transmit an evaluative comment in the form of a statement of fact. The context of a situation and the inflections of voice and mannerism communicate the former message while the flat words communicate the second message. This realization modifies the matrix by building into it the evaluative domain. This is achieved by placing it as a core within the matrix as shown in Figure 5.

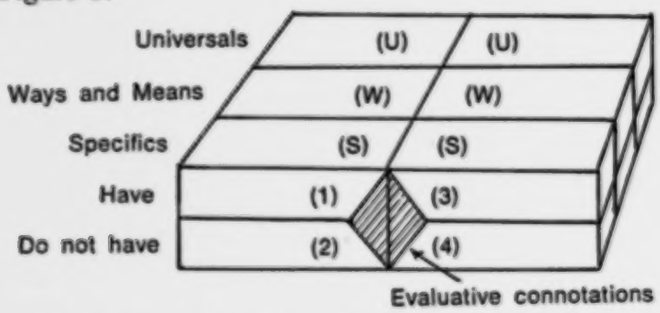

Figure 5. Schema Showing Basic Information Categories and Evaluative Connotations

The shaded area represents the evaluative domain. It runs through all cells. Thus, it is possible to classify a statement as IUE (have, not in conflict, universal evaluative).

Statements which do not pertain to the subject matter content of the group's agenda are coded as irrelevant.

In summary, I have covered a great deal of material in my paper. Many issues and points of clarification have been unavoidably, hastily glossed over. This was necessary in order that the model in its entirety could be presented.

I am actively testing the model in two projects now under way. One study is investigating the decision-making processes of teaching teams. The other is examining the interpersonal dynamics of leaderless groups in adult education. Hopefully, data from these studies will either support the interaction model presented here, or suggest ways in which it should be modified.

References

1. Robert F. Bales. *Interaction Process Analysis.* Cambridge: Addison-Wesley Press, Inc., 1951.

2. Edgar F. Borgatta. "A Systematic Study of Interaction Process Scores, Peer and Self-Assessments, Personality and Other Variables." *Group Psychology Monograph* 65: 219-91; May 1962.

3. Robert D. Boyd. "Basic Motivation of Adults in Non-Credit Programs." *Journal of Adult Education* 11: 92-98; 1961.

4. Robert D. Boyd. "Ego-Stage Development of School-Age Children." *Journal of Experimental Education* 39 (3): 249-58; Spring 1964.

5. Erik H. Erikson. *Childhood and Society*. New York: W. W. Norton and Co., Inc., 1950.

6. Erik H. Erikson. "Identity and the Life Cycle." Monograph, *Psychological Issues*, Volume 1, Number 1. New York: International University Press, 1959.

7. Otto Fenichel. *The Psycholoanalytical Theory of Neurosis*. New York: W. W. Norton and Co., Inc., 1945.

8. Ned A. Flanders. *Interaction Analysis in the Classroom*. (Revised.) Ann Arbor: University of Michigan, 1964.

9. Robert J. Havighurst. *Human Development and Education*. New York: Longmans, Green and Company, 1953.

10. Dorothy Stock and Herbert A. Thelen. *Emotional Dynamics and Group Culture*. Washington, D.C.: National Training Laboratories, 1958.

11. Herbert A. Thelen and Associates. *Methods for Studying Work and Emotionality in Group Operation*. Chicago: University of Chicago Press, 1954. (Mimeographed.)

12. John Withall. "An Objective Measurement of a Teacher's Classroom Interaction." *Journal of Educational Psychology* 47 (4): 203-12; April 1956.